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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,054	09/22/2003	Richard Laliberte	86267-34	6588
28291	7590	01/05/2006	EXAMINER	
FETHERSTONHAUGH - SMART & BIGGAR 1000 DE LA GAUCHETIERE WEST SUITE 3300 MONTREAL, QC H3B 4W5 CANADA			SUHOL, DMITRY	
			ART UNIT	PAPER NUMBER
			3725	
DATE MAILED: 01/05/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/666,054	LALIBERTE ET AL.	
	Examiner	Art Unit	
	Dmitry Suhol	3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/30/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 contains the trademark/trade name Delrin. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name appears to be used to identify/describe acetal or polyoxy-methylene and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 9, 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obata et al (JP 2000-003705) in view of Imai '515. Obata discloses a method and apparatus for lamination a lithium sheet containing most of the claimed elements including, with reference to claims 1 and 13, passing a sheet of lithium (6) between the meeting surfaces of a pair of working rollers (1, 2) to reduce the thickness of the sheet (figure 1), removing the lithium sheet of reduced thickness from between the pair of working rollers by applying a given tension to the sheet (figure 1, tension provided by take up reel 9). A pair of back-up rollers, as required by claims 4 and 15, are shown as rollers 3 and 4. The working rollers being made of plastic, as required by claims 11, are taught at page 2 of the translation (polyethylene is a well know plastic). Lubricant, as required by claims 12 and 13, is shown as lubricant dispensing unit (5) in the figures. A feed roller, as required by claim 13, is shown as roller (8) and a winding roll as required by claim 13 is shown as roll (9).

Obata fails to explicitly teach the step of adjusting the profile defined by the meeting surfaces of the working rollers (by applying hydraulic forces top the end of the working rolls as required by claims 2, 5 and 16) through the use of valves (as required by claims 6 and 19) to control the shape and profile of the lithium sheet thickness as required by claim 1, by the adjusting means of claims 13, a the working rolls having a convex shape as required by claims 3 and 18 and supporting members and frames, as required by claims 14 and 17. However, adjusting the profile of working rolls to control

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the shape (including a convex shape) of a sheet passing between them by applying hydraulic forces, controlled by valves (13), to the end portions of the rolls held in respective journal boxes is known in the art as taught by Imai (col. 3, lines 31-39).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the claimed invention to have manufactured the mill of Obata with the features taught by Imai (see above) for the purpose of adjusting the working roll profile in order to achieve the desired sheet profile/width regardless of wearing and crowning.

Regarding the use of electric actuators to control the pressure and forces acting upon the working rolls as required by claim 7, it would have been obvious to utilize such structure to control the forces and pressures applied to the working rolls since applicants clearly states that any type of pressure and force application means is encompassed by their invention (page 11, lines 9-11) and since the examiner takes official notice that such control means is well known in the art.

Regarding the limitations of claim 9, the use of a steel material in the working rollers would have been obvious since the examiner takes official notice that providing such rollers where at least the core is made of stainless steel is known in the art are commonly used for the purposes of durability and strength (e.g. see applicants admission with respect to U.S. patent 3,721,113).

The use of supporting frames, as required by claim 17, would have been obvious since the examiner takes official notice that such construction is notoriously well known in the art for the purpose of providing support and rigidity to the mill.

Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obata et al (JP 2000-003705) and Imai '515, as stated above, and further in view of Noe '283. Although Obata, as modified by Imai, fails to teach the step of passing a sheet through a series of tightly packed rollers as required by claims 8 and 20. However, Noe clearly teaches that it is known to pass sheet material through a series of tightly packed rollers (S') prior to the sheet passing through the working rolls (3, 4) of a mill for the purpose of straightening the sheet and providing the sheet with the desired tension.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obata et al (JP 2000-003705) and Imai '515, as stated above, and further in view of Davenport (W/O 01/97989). Obata, as modified by Imai, fails to explicitly teach the make up of his rollers being stainless steel (as required by claim 9) and chrome (as required by claim 10). However, Davenport discloses a work roller used in rolling mills such as the one of Obata which teaches that it is known to manufacture such rollers with a steel core (12) coated with chrome (14), (see page 10 lines 26+) for the purpose improved product flatness, high speed rolling and durability. Therefore it would have been obvious to utilize working rollers manufactured from stainless steel coated with chrome in the mill of Obata for the purpose of improved product flatness, increased rolling speeds and durability.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Obata et al (JP 2000-003705) and Imai '515, as stated above, and further in view of Rudolph '306. Obata, as modified by Imai, fails to teach the use of a thin film of insulating material to separate the layers of lithium film so that the layers will not adhere to each other as required by claim 21. However, Rudolph discloses a method and device usable with lithium cell material which teaches that it is known to provide take up reel (174) with a thin film (176) so that the layers of lithium film does not adhere to each other (col. 8, lines 49-52). Therefore it would have been obvious to incorporate a thin insulating material with the take up reel of Obata for the purpose of preventing the lithium film layers to stick to each other.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Suhol whose telephone number is 571-272-4430. The examiner can normally be reached on Mon - Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dmitry Suhol
Examiner
Art Unit 3725

ds